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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	OCT 04	Precision of EMBASE searching enhanced with new chemical name field
NEWS 3	OCT 06	Increase your retrieval consistency with new formats or for Taiwanese application numbers in CA/CAplus.
NEWS 4	OCT 21	CA/CAplus kind code changes for Chinese patents increase consistency, save time
NEWS 5	OCT 22	New version of STN Viewer preserves custom highlighting of terms when patent documents are saved in .rtf format
NEWS 6	OCT 28	INPADOCDB/INPAFAMDB: Enhancements to the US national patent classification.
NEWS 7	NOV 03	New format for Korean patent application numbers in CA/CAplus increases consistency, saves time.
NEWS 8	NOV 04	Selected STN databases scheduled for removal on December 31, 2010
NEWS 9	NOV 18	PROUSDDR and SYNTHLINE Scheduled for Removal December 31, 2010 by Request of Prous Science
NEWS 10	NOV 22	Higher System Limits Increase the Power of STN Substance-Based Searching
NEWS 11	NOV 24	Search an additional 46,850 records with MEDLINE backfile extension to 1946
NEWS 12	DEC 14	New PNK Field Allows More Precise Crossover among STN Patent Databases
NEWS 13	DEC 18	ReaxysFile available on STN
NEWS 14	DEC 21	CAS Learning Solutions -- a new online training experience
NEWS 15	DEC 22	Value-Added Indexing Improves Access to World Traditional Medicine Patents in CAplus
NEWS 16	JAN 24	The new and enhanced DPCI file on STN has been released
NEWS 17	JAN 26	Improved Timeliness of CAS Indexing Adds Value to USPATFULL and USPAT2 Chemistry Patents
NEWS 18	JAN 26	Updated MeSH vocabulary, new structured abstracts, and other enhancements improve searching in STN reload of MEDLINE
NEWS 19	JAN 28	CABA will be updated weekly
NEWS 20	FEB 23	PCTFULL file on STN completely reloaded
NEWS 21	FEB 23	STN AnaVist Test Projects Now Available for Qualified Customers
NEWS 22	FEB 25	LPCI will be replaced by LDPCI
NEWS 23	MAR 07	Pricing for SELECTing Patent, Application, and Priority Numbers in the USPAT and IFI Database Families is Now Consistent with Similar Patent Databases on STN

NEWS EXPRESS 17 DECEMBER 2010 CURRENT WINDOWS VERSION IS V8.4.2 .1,
AND CURRENT DISCOVER FILE IS DATED 24 JANUARY 2011.

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FILE 'HOME' ENTERED AT 10:34:37 ON 19 APR 2011

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                       0.23       0.23

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DICTIONARY FILE UPDATES:  18 APR 2011  HIGHEST RN 1282093-76-8

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Uploading C:\Program Files\STNEXP\Queries\10598750.str
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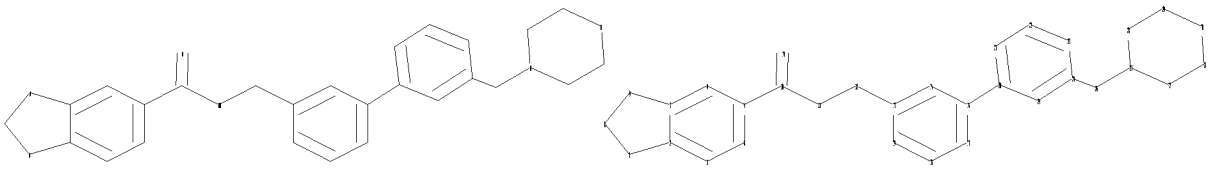

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ring nodes :
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chain bonds :
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ring bonds :
1-2 1-6 2-3 2-7 3-4 3-9 4-5 5-6 7-8 8-9 13-15 13-19 15-16 16-17 17-18
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31-32
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exact bonds :
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normalized bonds :
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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 13:Atom 14:CLASS 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
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29:Atom 30:Atom 31:Atom 32:Atom

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 10:35:26 FILE 'REGISTRY'

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SAMPLE SCREEN SEARCH COMPLETED -       62 TO ITERATE

100.0% PROCESSED       62 ITERATIONS                                3 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          768 TO     1712
PROJECTED ANSWERS:               3 TO      163

L2            3 SEA SSS SAM L1

=> s l1 ful
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100.0% PROCESSED     1342 ITERATIONS                              71 ANSWERS
SEARCH TIME: 00.00.01

L3           71 SEA SSS FUL L1

=> fil caplus
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   196.86     197.09

FILE 'CAPLUS' ENTERED AT 10:35:31 ON 19 APR 2011
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FILE COVERS 1907 - 19 Apr 2011  VOL 154 ISS 17
FILE LAST UPDATED: 18 Apr 2011  (20110418/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Feb 2011
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Feb 2011

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the fourth quarter of 2010.

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This file contains CAS Registry Numbers for easy and accurate
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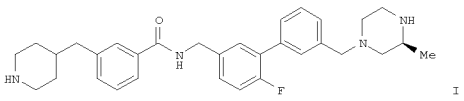
=> s l3
L4            4 L3

=> d ibib abs hitstr tot
```

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 2009:300646 CAPLUS
DOCUMENT NUMBER: 150:506203
TITLE: M3 muscarinic acetylcholine receptor antagonists: SAR and optimization of bi-aryl amines
AUTHOR(S): Budzik, Brian; Wang, Yonghui; Shi, Dongchuan; Wang, Feng; Xie, Haibo; Wan, Zehong; Zhu, Chongye; Foley, James J.; Nuthulaganti, Parvathi; Kallal, Lorena A.; Sarau, Henry M.; Morrow, Dwight M.; Moore, Michael L.; Rivero, Ralph A.; Palovich, Michael; Salmon, Michael; Belmonte, Kristen E.; Laine, Dramane I.; Jin, Jian
CORPORATE SOURCE: Centers of Excellence for Drug Discovery, GlaxoSmithKline, King of Prussia, PA, 19406, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2009), 19(6), 1686-1690
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 150:506203
GI



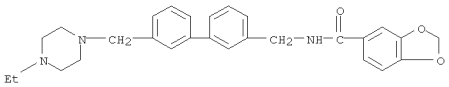
I

AB Exploration of multiple regions of a bi-aryl amine template led to the identification of highly potent M3 muscarinic acetylcholine receptor antagonists such as (I) (pA2 = 11.0) possessing good sub-type selectivity for M3 over M2. The structure-activity relationships (SAR) and optimization of the bi-aryl amine series are described.

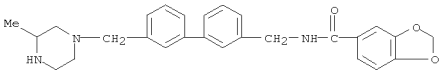
IT 865307-87-5 865307-89-7 865309-88-2
865309-90-6 865309-91-7 865311-26-8
865311-35-9 865311-36-0 865311-37-1
865311-52-0 865311-58-6 865311-79-1
865311-83-7 865311-86-0 865311-87-1
865311-88-2 865312-09-0 1150112-34-7
1150112-35-8
RL: PAC (Pharmacological activity); BIOL (Biological study)
(preparation, structure activity relations and optimization of biaryl amines
as M3 muscarinic acetylcholine receptor antagonists)

RN 865307-87-5 CAPLUS
CN Piperazinium, 1-[[3'-[[(1,3-benzodioxol-5-ylcarbonyl)amino]methyl][1,1'-biphenyl]-3-yl]methyl]-1-methyl- (CA INDEX NAME)

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)



RN 865311-26-8 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[(3-methyl-1-piperazinyl)methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



RN 865311-35-9 CAPLUS
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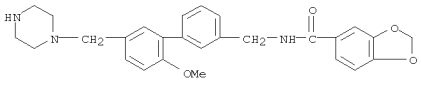
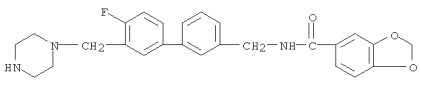


RN 865311-36-0 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[4'-fluoro-3'-(1-piperazinylmethyl)[1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



RN 865311-37-1 CAPLUS
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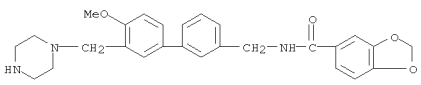
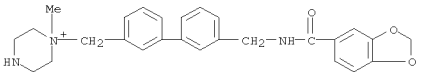
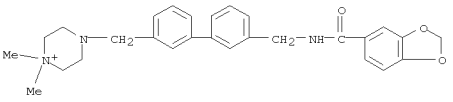


RN 865311-52-0 CAPLUS

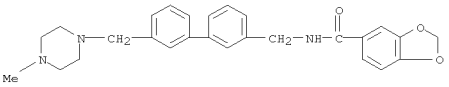
L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)



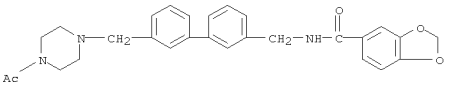
RN 865307-89-7 CAPLUS
CN Piperazinium, 4-[[3'-[[(1,3-benzodioxol-5-ylcarbonyl)amino]methyl][1,1'-biphenyl]-3-yl]methyl]-1,1-dimethyl- (CA INDEX NAME)



RN 865309-88-2 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[(4-methyl-1-piperazinyl)methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



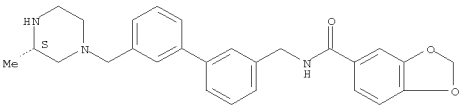
RN 865309-90-6 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[(4-acetyl-1-piperazinyl)methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



RN 865309-91-7 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[(4-ethyl-1-piperazinyl)methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)

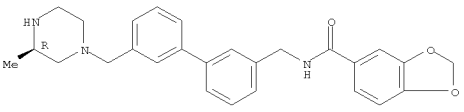
L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[[(3S)-3-methyl-1-piperazinyl]methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 865311-58-6 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[[(3R)-3-methyl-1-piperazinyl]methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 865311-79-1 CAPLUS
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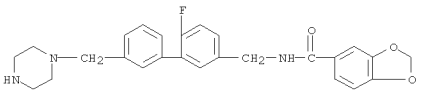

RN 865311-83-7 CAPLUS
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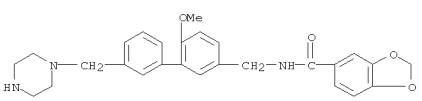
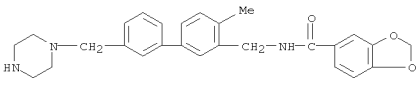


RN 865311-86-0 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[4-methyl-3'-(1-piperazinylmethyl)[1,1'-

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)
biphenyl]-3-yl]methyl]- (CA INDEX NAME)



RN 865311-87-1 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide,
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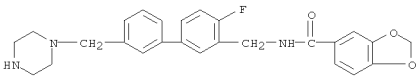

RN 865311-88-2 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide,
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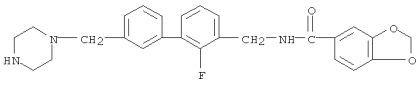

RN 865312-09-0 CAPLUS
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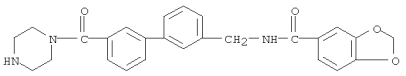

RN 1150112-34-7 CAPLUS
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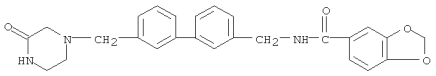
N-[[3'-[(3-oxo-1-piperazinyl)methyl][1,1'-
biphenyl]-3-yl]methyl]- (CA INDEX NAME)

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)



RN 1150112-35-8 CAPLUS
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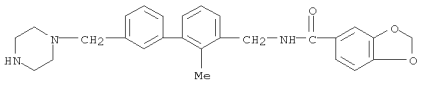

IT 865309-84-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation, structure activity relations and optimization of biaryl
amines
as M3 muscarinic acetylcholine receptor antagonists)
RN 865309-84-8 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-(1-piperazinylmethyl)[1,1'-
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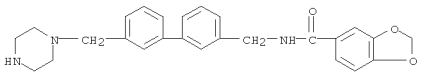

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR
THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 2008:1142365 CAPLUS
DOCUMENT NUMBER: 149:462091
TITLE: Discovery of Biphenyl Piperazines as Novel and Long
Acting Muscarinic Acetylcholine Receptor Antagonists
AUTHOR(S): Jin, Jian; Budzik, Brian; Wang, Yonghui; Shi,
Dongchuan; Wang, Feng; Xie, Haibo; Wan, Zehong; Zhu,
Chongye; Foley, James J.; Webb, Edward F.; Berlanga,
Manuela; Burman, Miriam; Sarau, Henry M.; Morrow,
Dwight M.; Moore, Michael L.; Rivero, Ralph A.;
Palovich, Michael; Salmon, Michael; Belmonte, Kristen
E.; Laine, Dramane I.
CORPORATE SOURCE: GlaxoSmithKline, King of Prussia, PA, 19406, USA
SOURCE: Journal of Medicinal Chemistry (2008), 51(19),
5915-5918
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 149:462091
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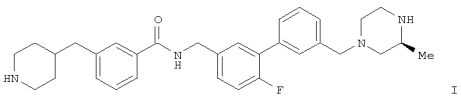


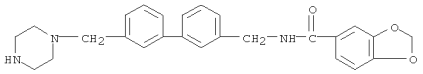
I

AB A series of novel biphenyl piperazines was discovered as highly potent muscarinic acetylcholine receptor antagonists via high throughput screening and subsequent optimization. Compound (I) with resp. 500- and 20-fold subtype selectivity for M3 over M2 and M1 exhibited excellent inhibitory activity and long duration of action in a bronchoconstriction in vivo model in mice via intranasal administration. The novel inhaled mAChR antagonists are potentially useful therapeutic agents for the treatment of chronic obstructive pulmonary disease.
IT 1070906-63-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(biphenyl piperazines as novel and long acting muscarinic
acetylcholine
receptor antagonists)
RN 1070906-63-6 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-(1-piperazinylmethyl)[1,1'-
biphenyl]-3-yl]methyl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 865309-84-8
CMF C26 H27 N3 O3

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)



CM 2

CRN 76-05-1
CMF C2 H F3 O2

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS
RECORD
(7 CITINGS)
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR
THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

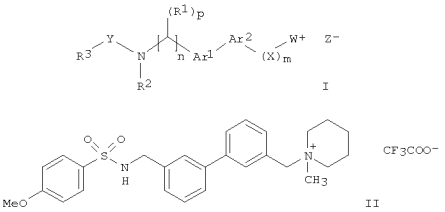
L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2005:1026884 CAPLUS
DOCUMENT NUMBER: 143:326394
TITLE: Preparation of biaryl quaternary ammonium salts as M3 muscarinic acetylcholine receptor antagonists
INVENTOR(S): Jin, Jian; Wang, Yonghui; Moore, Michael Lee; Rivero, Ralph A.
PATENT ASSIGNEE(S): Glaxo Group Limited, USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005086873	A2	20050922	WO 2005-US7822	20050311
WO 2005086873	A3	20090409		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, EP, OA				
EP 1751089	A2	20070214	EP 2005-725157	20050311
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU				
JP 2007530451	T	20071101	JP 2007-502970	20050311
US 20070179131	A1	20070802	US 2006-598750	20060911

PRIORITY APPLN. INFO.: US 2004-552105P P 20040311
WO 2005-US7822 W 20050311

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 143:326394; MARPAT 143:326394
GI



I

II

AB Title compds. I [wherein Ar1, Ar2 = (un)substituted Ph or monocyclic heteroaryl; W+ = (un)substituted ammonium; Z- = I-, Br-, CF3COO-, etc.; X = C(R1)p when m = 0-3; X = CO when m = 1; p = 0-2; n = 0-3; Y = CO, SO, SO2, HNC(O) or OC(O); R1, R2 = H, (un)substituted alkyl, etc.; R3 = (un)substituted (hetero)aryl, etc., or pharmaceutically acceptable salts thereof] were prepared as M3 muscarinic acetylcholine receptor antagonists.

For instance, solid-phase synthesis of II was realized in an overall yield of 38% on 2,6-dimethoxy-4-polystyrenebenzyloxybenzaldehyde (DMHB resin), via (1) reductive amination with 3-bromobenzylamine hydrochloride; (2) N-sulfonation with 4-methoxybenzenesulfonyl chloride; (3) Pd-catalyzed coupling with 3-formylphenylboronic acid; (4) reductive amination with piperidine; (5) quaternization with MeI; and (6) cleavage from the resin with TFA. No biol. data were given. I and pharmaceutical compns. are potentially useful for the treatment of muscarinic acetylcholine receptor-mediated diseases, such as respiratory tract disorders.

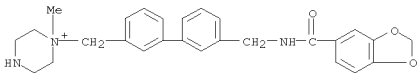
IT 865307-88-6P 865307-90-0P 865307-92-2P
865308-05-0P 865308-07-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antagonist; preparation of biaryl quaternary ammonium salts as M3 muscarinic acetylcholine receptor antagonists)

RN 865307-88-6 CAPLUS
CN Piperazinium, 1-[[3'-[[(1,3-benzodioxol-5-ylcarbonyl)amino]methyl][1,1'-biphenyl]-3-yl]methyl]-1-methyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 865307-87-5
CMF C27 H30 N3 O3

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)



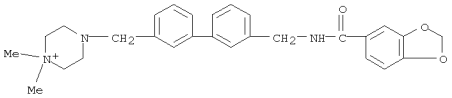
CM 2

CRN 14477-72-6
CMF C2 F3 O2

RN 865307-90-0 CAPLUS
CN Piperazinium, 4-[[3'-[[(1,3-benzodioxol-5-ylcarbonyl)amino]methyl][1,1'-biphenyl]-3-yl]methyl]-1,1-dimethyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 865307-89-7
CMF C28 H32 N3 O3



CM 2

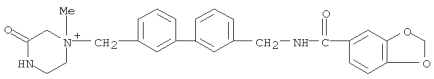
CRN 14477-72-6
CMF C2 F3 O2

RN 865307-92-2 CAPLUS
CN Piperazinium, 1-[[3'-[[(1,3-benzodioxol-5-ylcarbonyl)amino]methyl][1,1'-biphenyl]-3-yl]methyl]-1-methyl-3-oxo-, 2,2,2-trifluoroacetate (1:1) (CA

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)
INDEX NAME)

CM 1

CRN 865307-91-1
CMF C27 H28 N3 O4



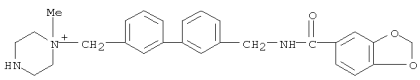
CM 2

CRN 14477-72-6
CMF C2 F3 O2

RN 865308-05-0 CAPLUS
CN Piperazinium, 1-[[3'-[[(1,3-benzodioxol-5-ylcarbonyl)amino]methyl][1,1'-biphenyl]-3-yl]methyl]-1-methyl-, salt with trifluoroacetic acid (1:1), mono(trifluoroacetate) (9CI) (CA INDEX NAME)

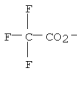
CM 1

CRN 865307-87-5
CMF C27 H30 N3 O3



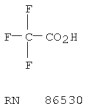
CM 2

CRN 14477-72-6
CMF C2 F3 O2



CM 3

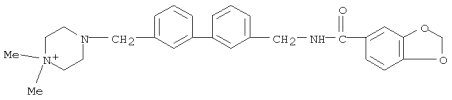
CRN 76-05-1
CMF C2 H F3 O2



RN 865308-07-2 CAPLUS
CN Piperazinium, 4-[[3'-[[(1,3-benzodioxol-5-ylcarbonyl)amino]methyl][1,1'-biphenyl]-3-yl]methyl]-1,1-dimethyl-, salt with trifluoroacetic acid (1:1), mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 865307-89-7
CMF C28 H32 N3 O3



CM 2

CRN 14477-72-6
CMF C2 F3 O2

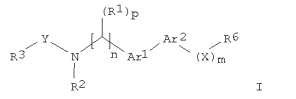
CM 3

CRN 76-05-1
CMF C2 H F3 O2

ACCESSION NUMBER: 2005:1021624 CAPLUS
DOCUMENT NUMBER: 143:326392
TITLE: Preparation of biaryl amines as M3 muscarinic acetylcholine receptor antagonists
INVENTOR(S): Budzik, Brian W.; Cooper, Anthony W. J.; Corbett, David Francis; Jin, Jian; Laine, Dramane I.; Wang, Yonghui; Moore, Michael Lee; Rivero, Ralph A.; Shi, Dongchuan; Wang, Feng; Xie, Haibo; Zhu, Chongjie
PATENT ASSIGNEE(S): Glaxo Group Limited, UK; et al.
SOURCE: PCT Int. Appl., 101 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005087236	A1	20050922	WO 2005-US8302	20050311
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1725236	A1	20061129	EP 2005-725459	20050311
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR, LV				
JP 2007528420	T	20071011	JP 2007-503080	20050311
US 20090253908	A1	20091008	US 2006-598743	20060911
PRIORITY APPLN. INFO.:			US 2004-552106P P	20040311
			WO 2005-US8302 W	20050311

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 143:326392; MARPAT 143:326392
GI



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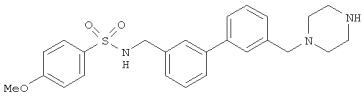

II

AB Title compds. I [wherein Ar1, Ar2 = (un)substituted Ph or monocyclic heteroaryl; R6 = (un)substituted amine; X = C(R1)p when m = 0-3; X = CO when m = 1; p = 0-2; n = 0-3; Y = CO, SO, SO2, HNC(O) or OC(O); R1, R2 = H, (un)substituted alkyl, etc.; R3 = (un)substituted (hetero)aryl, etc., or pharmaceutically acceptable salts thereof] were prepared as M3 muscarinic acetylcholine receptor antagonists. For instance, solid-phase synthesis of II·2CF3COOH was realized in an overall yield of 46% on 2,6-dimethoxy-4-polystyrenebenzyloxybenzaldehyde (DMHB resin), via (1) reductive amination with 3-bromobenzylamine hydrochloride; (2) N-sulfonation with 4-methoxybenzenesulfonyl chloride; (3) Pd-catalyzed coupling with 3-formylphenylboronic acid; (4) reductive amination with N-Bocpiperazine; and (5) cleavage from the resin with TFA. No biol. data were given. I and pharmaceutical compns. are potentially useful for the treatment of muscarinic acetylcholine receptor-mediated diseases, such as respiratory tract disorders.

IT 865309-85-9P 865309-88-2P 865309-90-6P
865309-91-7P 865309-97-3P 865310-04-9P
865310-50-5P 865310-77-6P 865310-99-2P
865311-23-5P 865311-26-8P 865311-29-1P
865311-35-9P 865311-36-0P 865311-37-1P
865311-41-7P 865311-42-8P 865311-43-9P
865311-52-0P 865311-58-6P 865311-79-1P
865311-80-4P 865311-81-5P 865311-82-6P
865311-83-7P 865311-84-8P 865311-85-9P
865311-86-0P 865311-87-1P 865311-88-2P
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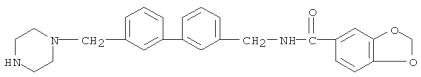
865312-46-5P 865313-10-6P 865313-12-8P
865313-15-1P 865313-24-2P 865313-25-3P
865313-31-1P 865313-48-0P 865313-61-7P
865313-63-9P 865313-67-3P 865313-79-7P
865313-80-0P 865313-84-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antagonist; preparation of biaryl amines as M3 muscarinic acetylcholine

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)
receptor antagonists)
RN 865309-85-9 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-(1-piperazinylmethyl)[1,1'-biphenyl]-3-yl]methyl]-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)

CM 1

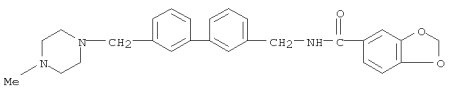
CRN 865309-84-8
CMF C26 H27 N3 O3



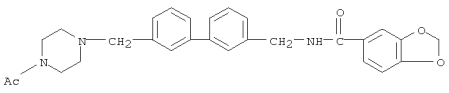
CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 865309-88-2 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[(4-methyl-1-piperazinyl)methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)

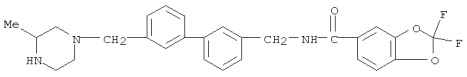


RN 865309-90-6 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[(4-acetyl-1-piperazinyl)methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)

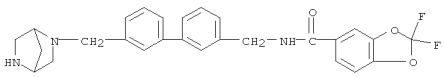


RN 865309-91-7 CAPLUS

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)



RN 865310-99-2 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-(2,5-diazabicyclo[2.2.1]hept-2-ylmethyl)[1,1'-biphenyl]-3-yl]methyl]-2,2-difluoro- (CA INDEX NAME)



RN 865311-23-5 CAPLUS
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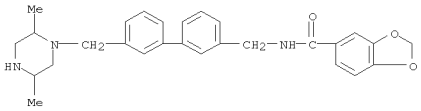

RN 865311-26-8 CAPLUS
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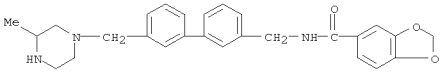

RN 865311-29-1 CAPLUS
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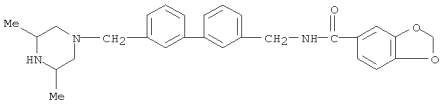
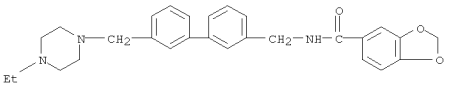
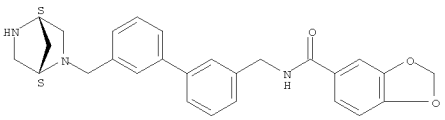


L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[(4-ethyl-1-piperazinyl)methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)

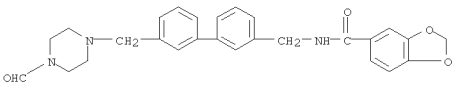


RN 865309-97-3 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[(1S,4S)-2,5-diazabicyclo[2.2.1]hept-2-ylmethyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)

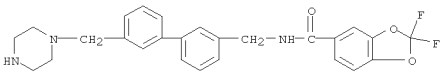
Absolute stereochemistry.



RN 865310-04-9 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-[(4-formyl-1-piperazinyl)methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



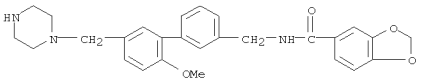
RN 865310-50-5 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, 2,2-difluoro-N-[[3'-(1-piperazinylmethyl)[1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



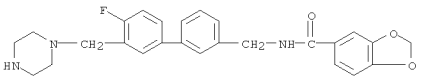
RN 865310-77-6 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, 2,2-difluoro-N-[[3'-[(3-methyl-1-piperazinyl)methyl][1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2011 ACS on STN (Continued)

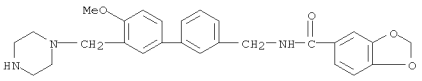
RN 865311-35-9 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[2'-methoxy-5'-(1-piperazinylmethyl)[1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



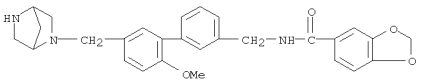
RN 865311-36-0 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[4'-fluoro-3'-(1-piperazinylmethyl)[1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



RN 865311-37-1 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[4'-methoxy-3'-(1-piperazinylmethyl)[1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



RN 865311-41-7 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[5'-(2,5-diazabicyclo[2.2.1]hept-2-ylmethyl)-2'-methoxy[1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)



RN 865311-42-8 CAPLUS
CN 1,3-Benzodioxole-5-carboxamide, N-[[3'-(2,5-diazabicyclo[2.2.1]hept-2-ylmethyl)-4'-fluoro[1,1'-biphenyl]-3-yl]methyl]- (CA INDEX NAME)

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=> log y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                      24.88     221.97

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                      -3.48      -3.48

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